

CLAIMS

What is claimed is:

1. A method for mapping SCSI2 reservation exchanges for use in a SCSI3 storage subsystem, the method comprising:
 - receiving a SCSI2 reservation exchange;
 - translating the received SCSI2 reservation exchange into a corresponding SCSI3 reservation exchange; and
 - processing the SCSI3 reservation exchange to manage reservation of an identified portion of storage in the storage subsystem.
2. The method of claim 1 wherein the step of processing comprises:
 - forwarding the SCSI3 reservation exchange to the storage subsystem.
3. The method of claim 1 wherein the step of translating comprises:
 - translating the received SCSI2 reservation exchange into a corresponding SCSI3 persistent reservation protocol exchange.
4. The method of claim 3 wherein the step of translating to a SCSI3 exchange comprises:
 - generating a unique identifier for a requesting host;
 - determining whether the unique identifier is known to the storage subsystem;
 - registering the unique identifier within the storage subsystem; and
 - translating a received SCSI2 reservation request into a corresponding SCSI3 persistent reservation reserve request using the unique identifier.
5. The method of claim 4 further comprising:
 - translating a received SCSI2 release request into a corresponding SCSI3 persistent reservation clear request using the unique identifier.
6. The method of claim 5 further comprising:
 - translating a received SCSI2 bus device reset request into a corresponding SCSI3 persistent reservation clear request using the unique identifier.

7. The method of claim 4 wherein the step of generating a unique identifier comprises:

generating said unique identifier from a WWN associated with the requesting host.

8. The method of claim 4 wherein the step of generating a unique identifier comprises:

generating said unique identifier from a WWN associated with an HBA of the requesting host.

9. The method of claim 4 wherein the step of generating a unique identifier comprises:

generating said unique identifier using a signature value indicative of a translation layer driver.

10. A system comprising:

a driver operable in a host system for generating SCSI2 reservation protocol exchanges;

a storage subsystem adapted to process SCSI3 reservation protocol exchanges; and

a translator communicatively coupled to said driver element and communicatively coupled to said storage subsystem, wherein said translator is adapted to translate said SCSI2 reservation protocol exchanges received from said driver into said SCSI3 reservation protocol exchanges and wherein said translator is further adapted to forward the SCSI3 reservation protocol exchanges to said storage subsystem.

11. The system of claim 10 wherein the translator further comprises:

an ID generator to generate a unique identifier corresponding to the host system.

12. The system of claim 10 wherein the translator further comprises:

an ID generator to generate a unique identifier corresponding to a host bus adapter of the host system.

13. The system of claim 10 wherein the translator further comprises:
an ID generator to generate a unique identifier to include a signature portion indicating generation by said translator.

14. The system of claim 10 wherein said translator is resident within the host system.

15. A system for processing SCSI2 reservation requests comprising:
driver means operable in a host system for generating SCSI2 reservation requests; and
translator means operable in the host system and communicatively coupled to the driver means for intercepting SCSI2 reservation requests and for translating the intercepted requests into SCSI3 persistent reservation requests.

16. The system of claim 15 wherein the translator means further comprises:
ID generator means for generating a unique ID to be associated with the SCSI3 persistent reservation requests.

17. The system of claim 16 wherein the unique ID includes a host identifier portion useful to verify the identity of the host system that generated the unique ID.

18. The system of claim 16 wherein the unique ID includes a translator signature portion useful to verify that the unique ID was generated by said translator means.

19. The system of claim 16 wherein the host system includes multiple paths for communicating with a storage subsystem and
wherein the ID generator means further comprises:
means for generating a unique ID for the host system used in translating said SCSI2 reservation requests on all paths of the host system.

20. The system of claim 16 wherein the host system includes multiple paths for communicating with a storage subsystem and

wherein the ID generator means further comprises:

means for generating a unique ID for each path of the host system used in translating said SCSI2 reservation requests on each path of the host system.

21. The system of claim 20 wherein the host system includes a host bus adapter associated with each path and wherein the means for generating a unique ID for each path includes:

means for generating each unique ID using a world-wide name (WWN) associated with each host bus adapter.